| SLEEP, SLEEP DISORDERS, AND BIOLOGICAL RHYTHMS  |          |   |  |  |
|---|----------|---|--|--|
| California Science Content Standards Biology/Life Sciences - Grades 9 - 12            |          |   |  |  |
| Lesson  | Standard | Description   |  |  |
| 2   | 6.g      | Know how to distinguish between the accommodation of an individual organism to its environment and the gradual adaptation of a lineage of organisms through genetic change.                       |  |  |
| 3   | 7.d      | Know variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.   |  |  |
| 2, 3, 4   | 9.b      | Know how the nervous system mediates communication between different parts of the body and the body's interactions with the environment.  |  |  |
| 1, 2, 3   | 9.c      | Know how feedback loops in the nervous and endocrine systems regulate conditions in the body.   |  |  |
| 2   | 9.d      | Know the functions of the nervous system and the role of neurons in transmitting electrochemical impulses.  |  |  |
| California Science Content Standards Investigation & Experimentation - Grades 9 to 12 |          |   |  |  |
| Lesson  | Standard | Description   |  |  |
| 1, 2, 3   | 1.a      | Select and use appropriate tools and technology (such as computer-linked probes, spreadsheets, and graphing calculators) to perform tests, collect data, analyze relationships, and display data. |  |  |
| 2, 3  | 1.b      | Identify and communicate sources of unavoidable experimental error.   |  |  |
| 1, 2, 3   | 1.c      | Identify possible reasons for inconsistent results, such as sources of error or uncontrolled conditions.  |  |  |
| 1, 2, 3, 4  | 1.d      | Formulate explanations by using logic and evidence.   |  |  |
| 1, 2, 3, 4  | 1.f      | Distinguish between hypothesis and theory as scientific terms.  |  |  |
| 1, 2, 3, 4  | 1.g      | Recognize the usefulness and limitations of models and theories as scientific representations of reality.   |  |  |
|   |          |   |  |  |

Recognize the issues of statistical variability and the need for controlled tests.

Analyze situations and solve problems that require combining and applying concepts from more than one area of

Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the

Recognize the cumulative nature of scientific evidence.

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science.

findings.

1.j

1.k

**1.l** 

1.m

1, 2, 3

1, 2, 3, 4

All lessons

All lessons

| California English-Language Arts Content Standards – Grades 9 & 10 |          |   |  |  |  |
|--|----------|---|--|--|--|
|  | Reading  |   |  |  |  |
| Lesson   | Standard | Description   |  |  |  |
| 1, 2, 3, 4   | 2.3      | Generate relevant questions about readings on issues that can be researched.  |  |  |  |
| All lessons  | 2.4      | Synthesize the content from several sources or works by a single author dealing with a single issue; paraphrase the ideas and connect them to other sources and related topics to demonstrate comprehension.                |  |  |  |
| All lessons  | 2.5      | Extend ideas presented in primary or secondary sources through original analysis, evaluation, and elaboration.  |  |  |  |
|  |          | Writing   |  |  |  |
| Lesson   | Standard | Description   |  |  |  |
| 2, 3, 4, 5   | 1.1      | Establish a controlling impression or coherent thesis that conveys a clear and distinctive perspective on the subject and maintain a consistent tone and focus throughout the piece of writing.                             |  |  |  |
| 2, 3, 4, 5   | 1.4      | Develop the main ideas within the body of the composition through supporting evidence (e.g., scenarios, commonly held beliefs, hypotheses, definitions).  |  |  |  |
| 2, 3, 4, 5   | 2.3.a    | Marshal evidence in support of a thesis and related claims, including information on all relevant perspectives.   |  |  |  |
| 2, 3, 4, 5   | 2.3.b    | Convey information and ideas from primary and secondary sources accurately and coherently.  |  |  |  |
| 2, 3, 4, 5   | 2.3.c    | Make distinctions between the relative value and significance of specific data, facts, and ideas.   |  |  |  |
| Pre-lesson, 1, 2, 3  | 2.3.d    | Include visual aids by employing appropriate technology to organize and record information on charts, maps, and graphs.   |  |  |  |
| 2, 3, 4, 5   | 2.3.f    | Use technical terms and notations accurately.   |  |  |  |
| 2, 3, 4, 5   | 2.4.a    | Structure ideas and arguments in a sustained and logical fashion.   |  |  |  |
| 2, 3, 4, 5   | 2.4.c    | Clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations, and expressions of commonly accepted beliefs and logical reasoning.  |  |  |  |
| Listening and Speaking   |          |   |  |  |  |
| All lessons  | 1.1      | Formulate judgments about the ideas under discussion and support those judgments with convincing evidence.  |  |  |  |
| All lessons  | 1.6      | Present and advance a clear thesis statement and choose appropriate types of proof (e.g., statistics, testimony, specific instances) that meet standard tests for evidence, including credibility, validity, and relevance. |  |  |  |
| All lessons  | 2.2.a    | Marshal evidence in support of a thesis and related claims, including information on all relevant perspectives.   |  |  |  |

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## CALIFORNIA ALIGNMENT FOR NIH SUPPLEMENT SLEEP, SLEEP DISORDERS, AND BIOLOGICAL RHYTHMS

| All lessons            | 2.2.b | Convey information and ideas from primary and secondary sources accurately and coherently.                               |
|------------------------|-------|--|
| All lessons            | 2.2.c | Make distinctions between the relative value and significance of specific data, facts, and ideas.                        |
| Pre-lesson,<br>1, 2, 3 | 2.2.d | Include visual aids by employing appropriate technology to organize and display information on charts, maps, and graphs. |
| All lessons            | 2.2.f | Use technical terms and notations accurately.  |

| California Mathematics Content Standards Algebra I - Grades 8 - 12 |          |  |  |  |
|--|----------|--|--|--|
| Lesson   | Standard | Description  |  |  |
| Pre-lesson, 1, 2, 3, 5   | 1.1      | Students use properties of numbers to demonstrate whether assertions are true or false.  |  |  |
| Pre-lesson, 1, 3   | 10.0     | Students add, subtract, multiply, and divide monomials and polynomials. Students solve multistep problems, including word problems, by using these techniques. |  |  |
| 1, 3   | 24.2     | Students identify the hypothesis and conclusion in logical deduction.  |  |  |
| 1, 2, 3  | 25.1     | Students use properties of numbers to construct simple, valid arguments (direct and indirect) for, or formulate counterexamples to, claimed assertions.        |  |  |